Decontaminating Medical Gas Cylinders potentially contaminated with COVID-19

In support of the Guidance Note published by Government, ‘COVID-19: Guidance for infection prevention and control in healthcare settings’ BOC has prepared this document to provide additional information concerning the decontamination of medical gas cylinders.

This guidance applies primarily to those cylinders that are used in the vicinity of patients, who potentially have been infected with the COVID-19 virus. Although cylinders, that are used on manifold systems are not likely to be contaminated by the virus, the advice shall be applied to all cylinders in need of disinfection prior to being returned to BOC.

The advice provided to the Health Service, under normal conditions, is not to use any disinfectants that are chlorine based. However, under the current emergency conditions, BOC believe that it is more important to ensure cylinders have been decontaminated prior to them being returned in order to prevent any persons handling them from becoming infected.

When inspecting the cylinder before decontamination, observe whether there is any blood or bodily fluids contaminating the surface of the cylinder. This should be removed before disinfection using warm soapy water to remove the bulk of any deposits. Having removed the offending contaminants, dry the cylinder before attempting to disinfect.

Our advice for decontaminating cylinders is to use a disinfectant that contains no chlorine or ammonia ions (such as IPA or Sanosil 5003), but we are aware that this product may not be readily available. As an interim measure, limited to the duration of any COVID-19 virus control measures, the following cylinder decontamination process must be followed:

- Prior to decontaminating cylinders, it is preferable that any outlet covers are replaced to prevent disinfectant solution from entering the valve outlet(s).
  
  Staff should be reminded not to remove these covers when setting up and using cylinders so that they may be refitted immediately after use when the equipment is removed.

- Ideally, the cylinders should be disinfected with a suitable wipe (such as the Tristel Chlorine Wipe, as used by the NHS). Where wipes are not available, the disinfectant should be sprayed directly onto a disposable cloth / paper towel, which can then be used to wipe down the contaminated surfaces.

- When decontaminating the cylinder, start at the valve and carefully wipe over the surfaces that could have been handled or become contaminated whilst treating the patients.

- When cleaning the guard on a cylinder fitted with an integral valve,
  
  - do not spray any disinfectant on the guard as it may get inside the guard where it will not be visible should any corrosion occur
  - do not spray disinfectant on to, or use the wipes near the valve outlet(s)

- Continue wiping the label collar and the area around the shoulder of the cylinder. Depending on the cylinder size, it may not be necessary to clean all of the body of the cylinder (for G and J size cylinders), but generally, the advice is to ensure that any surfaces that could have been contaminated must be disinfected.

- Having applied the disinfectant to all areas, the wipe/cloth should be used to remove any excess fluid from the surface of the cylinder package.

- Allow at least five minutes following disinfection and use a clean damp cloth to wipe down the external surface of the cylinder valve / guard to remove any disinfectant.
  
  Note: Chlorine based disinfectants can cause permanent damage to the cylinder valve if allowed to remain on the surface of the brass.

- Dispose of the wipe / cloth after cleaning each cylinder so that no contaminants are transferred between cylinders.

- Once disinfected, move cylinders to a quarantined area ready for collection, where they are not likely to become re-contaminated.